When is a drone not a drone? Performing Meaningful Scientific Work with the AggieAir Unmanned Aerial System

Authors:
Calvin Coopmans, Austin M. Jensen, and Mac McKee
AggieAir UAS Group (http://aggieair.usu.edu/)
Utah State University, Logan, UT, USA

c.r.coopmans@ieee.org
austin.m.jensen@ieee.org
mac.mckee@usu.edu

Summary
Current aerial drones are platforms for weapons or surveillance, providing actionable intelligence or targeted strikes. Although similar in many respects, the AggieAir UAS is not a drone. AggieAir is designed to target scientific remote sensing applications, and has been used to provide meaningful scientific data for many ecological applications, including precision agriculture, wetland vegetation mapping, and river monitoring for fish habitat. This poster introduces AggieAir from a scientific perspective and shows how key differences from other UASs allow collection of significant scientific data, used in meaningful ways.

AggieAir Sensor Payloads
Visible, NIR, Thermal (7-14 um), etc.

AggieAir System Architecture

Minion Platform

Titan Platform

Multirotor VTOL Platform